



Australian Bureau of Statistics

CensusAtSchool Australia

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Resources



CaSQ 27 - Time Series of Height

You can download this activity as a rich text file (RTF) using the link at the bottom of the page.

How to: Get a Random Sample from CensusAtSchool

Go to the CensusAtSchool Random Sampler to download a sample.

Reference year: *(Select year)* **Sample size:** *150 students*

Select questions: *Height*

Location: *Select location* **Year level:** *(Select a range of year levels)*

To protect privacy there is a rule built into the sampler that the requested sample size cannot exceed 10% of the respondents for the parameters entered.



Please note: This task is designed to be completed by hand. It can also be completed using a computer or CAS calculator.

Task:

1. In your CensusAtSchool random sample, find the question about year level, and the question about height, and enter both sets of thirty numbers as:

a table in your workbook, or
two columns in Excel, or
two separate lists in your CAS calculator.

2. Sort your data by year level; it's easier if you use the SORT function in Excel.

3. Find years 7, 8, 9, 10 and 11. Each year level must have at least ten values. Use the first ten values from each of the five year levels to fill in the table below. You are only using fifty values all together. Add the heights up and calculate the mean for each year level.

Year	Height										Total	Mean
7												
8												
9												
10												
11												

4. Create a line graph with your data, using the means and the year levels.

- Think about which set of data is the independent and which the dependent variable.
- Plan your axes to include the highest and lowest values in the data

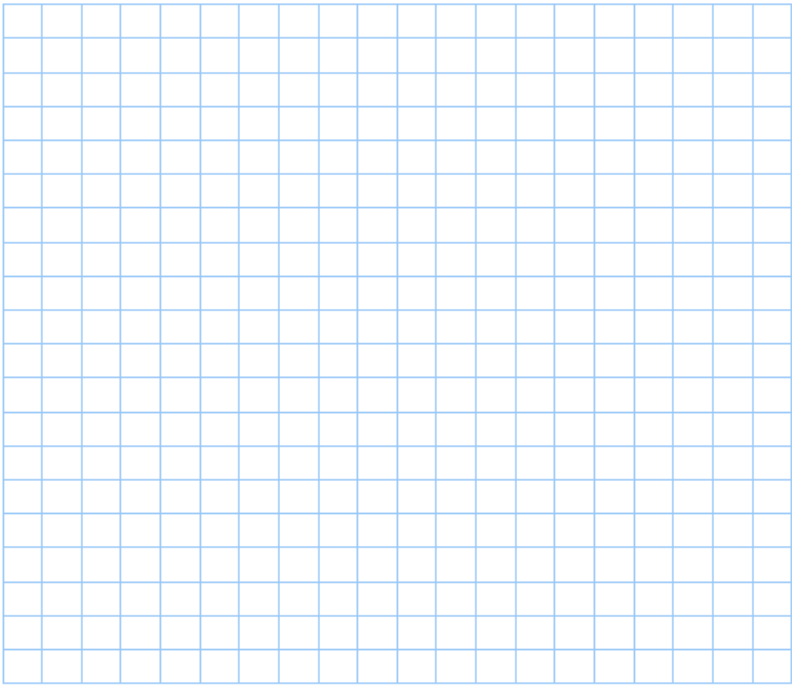
5. Look at your graph. Can you see any trend or pattern to the data?
Complete this sentence

As year level _____, height _____.

6. Write a short summary of conclusions you can draw from your line graph.

Extension:

7. Explain how the slopes would differ if you had used only girls' or only boys' mean heights? Use your CensusAtSchool random sample to investigate this.



Download the full activity:

RTF

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This page last updated 12 November 2013

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